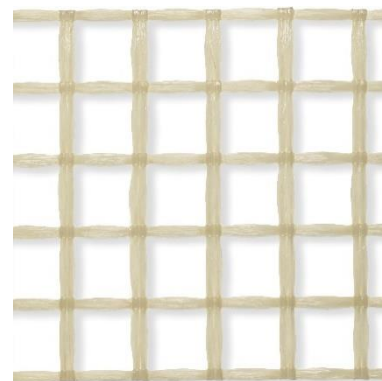




solidian GRID Q121-RRE-38-E5

Symmetrical, bidirectional reinforcement mats (type Q) made of alkali-resistant glass fiber reinforced plastic



Material

Fiber material	ECR glass
Impregnation material	Epoxy resin

Geometry

Shape	Mat		
Dimensions	[m]	6,0 x 2,30	
		Longitudinal	Transversal
Axis distance of strand	[mm]	38	38
Cross sectional area of strand	[mm ²]	4,62	4,62
Cross sectional area of reinforcement	[mm ² /m]	121	121

Specifications

			Longitudinal	Transversal	Standard
Tensile strength of roving	[N/mm ²]		≥ 1.500	≥ 1.500	-
Tensile strength	average	[N/mm ²]	≥ 1.300	≥ 1.300	ISO 10406-1:2008
	char. value ¹⁾	[N/mm ²]	≥ 1.100	≥ 1.100	DIN EN 1990 ISO 10406-1:2008
Resisting force (mean value)	[kN/m]		151	151	-
Resisting force (characteristic)	[kN/m]		133	133	-
Young's modulus (reinforcement)	[N/mm ²]		≥ 70.000	≥ 70.000	ISO 10406-1:2008

¹⁾ The ultimate stress was derived from experimental tests on roving tensile tests. The values given here represent values for the static short-term strength at room temperature (20°C); influences from durability, permanent creep loads, cyclic stresses, etc. are not taken into account here.



Product page

<https://solidian.com/products/solidian-grid-fiberglass-mats/>

build solid.



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Measurement

Specified values were determined on the product itself. Deviating properties may occur in the structural component or during processing. We recommend checking the values by suitable structural component tests with the concrete formulation used in each case.

Tests

As part of our in-house production control, two test units with 6 tensile tests each per reinforcement direction are carried out for each production order for quality assurance purposes, from which the average short-term tensile strength is determined. All other measured values are determined as part of a comprehensive product qualification and are not subject to continuous control.

The described tensile tests per production order are included in the quotation costs. If you need an extended production control for your construction project, please contact us. We will be happy to provide you with a non-binding quotation for additional production-related tests.

Country-specific regulations

The use of the product is governed by the respective national regulations at the place of use, in Germany for example the building codes of the federal states, and the technical provisions based on these regulations.

The design is generally carried out in accordance with the applicable standards for reinforced concrete components, although adjustments must be made for fiber composite plastic reinforcements if applicable standards, guidelines, etc. for fiber composite plastic reinforcements are not available. Accordingly, the respective national standards and regulations must be taken into account in the design.

Processing information

All work must be carried out by trained/instructed personnel only. Damaged fiber bundles (resin spalling, brittle areas, etc.) must not be installed, as the specified load-bearing capacity cannot be guaranteed. The specified values of the product, in particular with regard to tensile strength, only apply if the product is used as intended.

For further information, please refer to the current Technical Information for our solidian GRID reinforcement mats (www.solidian.com/downloads).

Ecology and health protection

REGULATION (EC) NO. 1907/2006 - REACH.

This product is an article as defined in Article 3 of Regulation (EC) No 1907/2006 (REACH). It does not contain substances that are released from the article during normal use. A safety data sheet according to Article 31 of the same regulation is not required to place this product on the market, to transport it or to use it. For safe use, follow the instructions from this data sheet. To our current knowledge, this product does not contain any SVHC (Substances of Very High Concern) according to Annex XIV of the REACH Regulation or substances published on the Candidate List by the European Chemicals Agency at concentrations above 0.1% (w/w).

Industrial safety and health

Protective measures must be observed during all work with cutting equipment, such as wearing cut-resistant gloves, safety goggles and a dust mask. The actual handling of fiber composites should be based on the Technical Rules for Hazardous Substances (TRGS) of the German Federal Institute for Occupational Safety and Health (baua). Furthermore, we refer to the DGUV information "Machining of CFRP materials - Guidance for protective measures" (FB-HM 074, issue 10/2014).

Legal information

The above information is based on our knowledge and experience under normal conditions, provided that the product has been transported, stored, used and processed properly and in accordance with the specifications in this Product Data Sheet and the Technical Information for our solidian GRID reinforcement mats. The work results that can be achieved with our products depend in particular on their use and processing. The suitability of the product for the specific application must be checked in advance on your own responsibility.

Since non-metallic reinforcements are not yet regulated by building authorities in most countries, planners, specialist planners, building authorities, structural engineers, experts, etc. must be consulted for load-bearing components and country-specific regulations must be observed (e.g. approvals in individual cases).

We reserve the right to make changes to the product specifications. Third-party industrial property rights must be observed. In all other respects, our respective terms and conditions of sale and delivery shall apply. The latest technical product data sheet at the time of purchase of our products shall apply.

